

Notice of Allowability

Application No.

09/762,424

Examiner

Kevin Mew

Applicant(s)

HAYASHI, MORIHIKO

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/12/2007.
2. ☒ The allowed claim(s) is/are 6, 8-31, 33, 35-52, 55, 57-95, which have been renumbered as claims 1-84, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 17.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Detailed Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on 10/12/2007 regarding claims 6, 8-31, 33, 35-52, 55, 57-95 have been fully considered. Claims 1-5, 7, 32, 34, 53-54, 56, 96-97 have been cancelled by applicant. Claims 6, 8-31, 33, 35-52, 55, 57-95 are currently pending.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Bruno Polito on 11/5/2007.

The application has been amended as follows on the next two pages:

Claim 52. (Currently Amended) A communication terminal of communication system, wherein at least a communication control unit and a plurality of communication terminals share a channel and each of said plurality of communication terminals carries out communication at every predetermined communication cycle while avoiding a collision with other communication terminals, comprising:

allocation request means for, prior to start-up of data communication, generating a communication timing allocation request and transmitting this to said communication control unit;

transmission control means for transmitting data at said communication timing allocated by said communication control unit at every said communication cycle;

a random access control means for, if data to be transmitted is real time data, transmitting said real time data by control of said transmission control means based on said communication timing, and if data to be transmitted is random data generated at random, transmitting through random access region other than the real time region for transmitting said real time data in said communication cycle; and

a re-transmission control means for, if said real time data transmitted through said real time region by control of said transmission control means is not received properly, re-transmitting said real time data not received properly through said random access region, whereby said terminal is operable to receive, for each iteration of said communication cycle, communication timing allocation information for one or more other communication terminals sharing said channel.

Art Unit: 2616

Claim 58. (Currently Amended) The communication terminal according to ~~claim 53~~ claim 52 further comprising a random access control means for, if data to be transmitted is real time data, transmitting said real time data by control of said transmission control means based on said communication timing, and if data to be transmitted is random data generated at random, transmitting through random access region other than the real time region for transmitting said real time data in said communication cycle.

Claim 61. (Currently Amended) The communication terminal according to ~~claim 53~~ claim 52, wherein said channel uses a carrier having a same predetermined frequency, further comprising a carrier detecting means for detecting presence or absence of said carrier on said channel to avoid a collision of use of said shared channel based on the result of the detection.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

The present application relates to providing a communication method and system for a plurality of communication terminals sharing a single channel to permit a communication terminal to communicate at a predetermined communication cycle while avoiding a collision with an other communication terminal, including the unique steps of:

“wherein a real time region for communicating real time data based on the allocated communication timing and a random access region for communicating data at random timing are provided by dividing said communication cycle into two sections;

wherein if the real time data transmitted through said real time region is not received properly, said real time data not received properly is re-transmitted through said random access region.”

The closet prior arts, Masui et al. (USP 6,393,013) and Kim et al. (USP 6,172,971), disclose a combined radio communication method and system for allocating real-time time slots and idle time slots to real-time traffic and non-real-time traffic, respectively. However, Masui and Kim fail to anticipate or render obvious the above quoted limitations of the present application. This renders the claims allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Application/Control Number: 09/762,424

Page 6

Art Unit: 2616

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2616

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Mew
Work Group 2616

KM


CHI PHAM
SUPERVISORY PATENT EXAMINER

11/6/07